

MANUAL OF  
PHYSICAL TRAINING

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TEACHER'S MANUAL

OF

Physical Training

BY

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## INTRODUCTORY.

*“Mens sana in corpore sano.”*

To maintain a high standard of organic life by means of a rational development of the bodily organs and functions, to make the body a skilful and obedient servant of the mind, to render human life as free from bodily ailments as possible, are the aims set forth in physical education.

Physical education ranks in importance with the various branches of study in our schools and colleges. In the school-room physical training serves as a rest from mental work and at the same time is a stimulus for renewed effort to continue mental work.

During the time of exercising, a mental effort is put forth, but, from a psychophysiological standpoint, the nerve cells which are in motion during the time purely mental activity is proceeding, are resting while physical exertion takes place, other cells being brought into action.

The body gathers strength in movement, bodily strength promotes physical health, and only by means of a certain element of physical capacity is intellectual activity possible. Physical education not alone promotes health and produces strength, but develops the ability to benefit by them materially. If a pupil is capable of performing different movements at the same time, together or successively, he shows agility. The prompt execution of exercises develops in him a capability which proves of great value in practical life. Physical education also aids in developing the sense of the beautiful.

The child is taught to execute all exercises gracefully and with freedom of movement. At all times, when exercising and when the body is in repose, a good carriage is maintained and the pupil is soon taught to appreciate harmony in movement and learns to regard with distaste any attitude displeasing to the eye. Exercises leading from simple to complicated produce confidence, which is the foundation of that energy so essential to success.

The demands of physical education — to be in good health, to be vigorous, to be skilful and agile.



and to correct, as far as possible, physical defects — are the means human art affords us by which the gifts of nature, with which we are endowed at birth, are preserved.



## REMARKS TO TEACHERS.

## SCHOOL-ROOM.

For extensive gymnastic exercises special apartments are necessary, but, owing to the lack of space in many of our schools and to the scarcity of funds to provide such space, it becomes necessary to exercise in class-rooms. The exercises contained in the following pages are especially adapted to the school-room, being so arranged that they may be executed at desks and in aisles. Exercises taken in the open air are of even greater benefit, and where convenient, out-door exercises should be frequently given. Also light games, directed by the teacher, should be often indulged in by the pupils.

## VENTILATION.

The precaution of thoroughly ventilating school-rooms is highly important. Exhaled air differs from inhaled air in that it is warmer, contains more moisture, less oxygen, and more carbonic acid. In suspension it contains poisonous organic matter. It thus becomes necessary, where no special provisions for ventilation exist, to provide

fresh air by means of lowering and raising windows before giving physical exercises. In thus obtaining a new supply of pure air, care must be taken to avoid exposure to draughts. It is well to appoint monitors to attend to the opening of windows as soon as the command "Calisthenics" is given.

#### TEMPERATURE.

The temperature of a class-room during the time of exercising should vary from 60° to 65° F. In lower grades the upper limit is preferable.

#### TIME.

Not less than fifteen minutes daily should be devoted to physical exercises in order to derive material benefit from them. In upper grades it is advisable to have the time assigned to physical training divided into two periods of eight to ten minutes each, one occurring in the morning, the other during the afternoon, both following work that has required unusual mental effort or a prolonged sedentary position. In lower grades it is preferable to give shorter periods more frequently. As the time is limited, it should not be wasted in undue explanations of exercises.



## PUPIL.

As physical training is recognized as a necessary obligatory factor of education, only such pupils are to be exempt to whom the exercises may prove detrimental, owing to physical defects.

During the lesson the pupils are to be arranged according to height, taller pupils occupying the rear, the smaller the front part of the room, allowing an oversight of the entire class. It is well to place boys and girls in alternating rows, as a number of the lessons are based upon this arrangement.

The wearing of proper clothing during the exercises is very important. In public schools it is difficult to adopt uniform apparel for exercising; it must therefore suffice that the teacher caution the pupils to wear garments sufficiently loose to allow perfect freedom of movement. This is to be especially emphasized in upper grades. The teacher should caution pupils against the injurious results caused by the wearing of tight garments, and should explain to them how vital organs are thereby hindered in growth.

## THE TEACHER.

The teacher must assume a position in which he is easily seen by every pupil, standing erect and firm, and avoiding the moving about from place to place, while the class exercises. Not only during class-work is it necessary for the teacher to maintain a perfect carriage; at all times should his faultless attitude be a model for imitation to the pupils.

The success of physical training depends greatly upon proper illustration by the teacher. In this work experience has shown that imperfect positions assumed by the teacher, especially a faulty carriage, are again noticeable in pupils. Illustrations must be perfect; if they are not, imitation of faulty positions will result and the pupil gains nothing; in fact, fares worse than if no physical training were given him. If for any reason the teacher is unable to properly execute an exercise, it is well to have it performed by a competent pupil, the teacher however commanding.

As these exercises aim to develop the child in a different direction than do his studies, making him physically sound and strong, enabling him to pursue mental work with greater ease, it is of great

importance that the teacher, when giving instruction in physical training, enters into the spirit of the work in such a manner as to arouse in the children that enthusiasm which makes the work a success. These exercises are not alone beneficial to the physical health of the pupil; their disciplinary value in the school-room is evident, and is greatly appreciated in schools in which physical culture is compulsory. By enforcing instant obedience in the execution of exercises, the child will naturally show the same willingness to obey when occupied with the various other branches of study.

#### THE COMMAND.

Good results in physical training depend to a great extent upon the manner in which the command is given. It must be concise, definite, and distinct, at the same time intermingled with kindness of manner to encourage the children's best efforts. Commands consist of two parts: the preparatory, describing the exercise and telling the pupils *what* is to be executed; the executional, telling them *to do* what has been designated and also indicating the speed of motion. The preparatory command is given in a loud, distinct tone of

voice and moderately slow, in order to give every pupil time to comprehend what is to be done and to have the exercise clearly fixed in mind when the executional command is given. This command is given with short decisive accentuation, as in thrusting, striking, and flinging, when quick rhythm is required, with lingering intonation when speed of motion is slow, as in trunk and neck exercises, also in breathing exercises and in movements of grace.

A short pause is made between the command of preparation and that of execution. The commands of execution are *Begin!* *Raise!* *Bend!* *March!* etc. When an exercise is to be discontinued, the command *Halt!* is given distinctly and decisively.



## METHODS.

There are various ways of teaching physical exercises. The following are some which have been successfully employed :

1. *Exercising by Imitation.* — This method is confined to lower grades, especially to the first, and is then only employed in advanced classes when complicated exercises require illustration.

2. *Exercising by Command.* — After a command is given, pupils remain in position until another movement is indicated by a second command, thus :

1. Arms forward — *Raise !*
2. Arms — *Down !* or
1. Raise arms forward — *One !*
2. Lower arms — *Two !*

This method requires closer attention on the part of pupils. It also gives the teacher an opportunity to make any necessary corrections. It should be frequently used in all classes. This method is especially adapted for introductory work and to new exercises.

3. *Exercising by Count.* — At the command,

*Begin!* the pupils perform the exercise, and discontinue at the command, *Halt!* At times the speed of motion may be changed by counting rapidly or slowly when arm and leg movements are given. When an exercise consists of two or more movements suddenly cease counting, then resume the count. This method has proven of unusual interest to both teacher and pupils.

4. *Exercising by Continuation.* — In advanced classes only may this method be employed. While the pupils execute the exercises by count or with tapping, the teacher gives a new movement (still beating time), and with the command, *Begin!* the new exercise is taken up by the class. The word, *Change!* may be substituted for the command, *Begin!* It is well to accent the count preceding the last count of the exercise in order to give the pupils an opportunity to prepare for the next following exercise and to be ready to execute it at the word *Begin!* or *Change!*

## MUSIC.

Both vocal and instrumental music are employed as accompaniment to physical exercises. It is appropriate in drills which have been memorized by the pupils and in exercises at school celebrations where the selection of the music is suited to the day observed. To use music regularly in connection with physical training is not advisable, as it detracts the attention from the work and the exercises are executed in a mechanical manner.





## GENERAL REMARKS.

1. In the lessons that follow, the exercises always begin with or to the left. Do not follow the lessons too methodically, begin occasionally to the right.

2. In order to be effective, exercises of two counts must be uninterruptedly executed at least ten times and those of four counts not less than six times.

3. Each grade's work is arranged in thirty-six lessons, each of which extend over the entire school year, allowing time for review. One lesson is to be taken each week and is to be practiced daily during that time.

4. During the first weeks of the term the teacher should teach no more than the given lesson. When the pupils have become accustomed to the work, a review of the preceding lessons may be given in addition to the new one.

5. At the beginning of the week, when the lesson is new to the pupils, time will not permit taking the entire lesson during one period; it is

therefore advisable to exercise certain parts of the body at the first period which will not be taken at the second, thus exercising the entire body in one day.

6. In illustrating an exercise the teacher must perform the movement in the opposite direction, so that a reflex position is produced, for example : the command, Raise arms sideways — Left! is given, the teacher in showing the exercise raises the arms to the *right*.

7. Explanation of terms :

(a) *Simultaneously*. When two or more separate movements are executed together or if one exercise consists of two movements and the other of four, and if it be required that both are to be executed together, the exercise of two movements is repeated, in order to correspond to the one of four counts.

(b) *Alternately*. When two or more exercises are executed in turn repeatedly.

(c) *Return*. To come back to original position from whence the exercise started, frequently in

exercises of four counts only the first and second position being described, the third being like the first position and the fourth the starting position, in such an instance the term *Return!* means to come back to the first position, then to the *starting* position.





## EXPLANATIONS OF FUNDAMENTAL EXERCISES.

### A. ARM POSITIONS.

1. *Arms forward* (Fig. 33). — Arms forward, horizontal, and parallel. Palms inward. Thumbs resting on index fingers.

2. *Arms sideways* (outward) (Fig. 34). — Arms sideways (outward), horizontal. Palms downward.

3. *Arms forward upward* (Fig. 35). — Arms upward (perpendicular) and parallel. Palms inward.

4. *Arms sideways upward* (Fig. 36). — Arms upward (perpendicular) and parallel. Palms outward.

5. *Arms obliquely forward upward* (Fig. 15). — Arms are in position between forward and upward at angle of  $45^{\circ}$ . Arms are parallel and palms inward.

6. *Arms obliquely forward downward* (Fig. 18). — Arms are in position between forward and downward at angle of  $45^{\circ}$ . Arms are parallel and palms inward.

7. *Arms obliquely backward downward* (Fig. 15). — Arms are in position between backward and downward at angle of  $45^{\circ}$ . Arms are parallel and palms inward.

8. *Arms obliquely sideways upward* (Fig. 19). — Arms are in position between upward and sideways (outward) at angle of  $45^{\circ}$ . Palms obliquely outward.

9. *Arms obliquely sideways downward* (Fig. 19). — Arms are in position between sideways and downward at angle of  $45^{\circ}$ . Palms obliquely inward.

Note : In all these positions the thumbs rest on index fingers.

10. *Hands grasped in rear* (Fig. 11). — Hands are grasped behind body, left hand resting in right, left thumb over right. Arms are bent naturally and rest lightly on hips.

11. *Hands on hips* (Fig. 12). — Hands are placed firmly on hips. Thumbs backward and meeting, fingers together, chest forward, elbows and shoulders back.

12. *Hands clasped in rear* (Fig. 21). — The fingers are interlaced, otherwise the position is the same as in No. 10.

13. *Arms folded in front* (Fig. 10). — Arms are crossed on chest, the right arm being uppermost. Hands grasping upper arms near elbows, fingers above and thumbs beneath.

14. *Arms folded in rear* (Fig. 16). — Arms are crossed in rear of body, right arm uppermost. Hands grasping upper arms near elbows, fingers beneath and thumbs above.

15. *Hands placed on shoulders* (Fig. 13). — Hands pass in front of body to shoulders. Fingertips touching shoulders, upper arms horizontally outward, chest forward, shoulders back.

16. *Arms bent to thrust* (Fig. 20). — Fore-arms horizontally and parallel forward at sides of body. Move arms slightly backward. Fingers are clenched and knuckles turned sideways.

17. *Hands clasped behind head* (Fig. 14). — Raise arms sideways, move hands behind head and interlace fingers and support back of head, elbows outward.

18. *Hands placed behind head* (Fig. 25). — Raise arms sideways and move hands behind head. Fingers extended to meet. Upper arms horizontal and elbows outward.

19. *Arms to strike forward* (Fig. 22). — Arms are raised forward and bent to an acute angle, upper-arms are horizontal and if possible parallel. Hands close to shoulders, fingers clenched and knuckles sideways.

20. *Arms to strike sideways* (Fig. 23). — Arms are raised sideways and bent to an acute angle, upper-arms horizontal and out-

ward. Hands close to shoulders, fingers clenched and knuckles backward.

21. *Arms crosswise on chest* (Fig. 17). — Forearms are placed crosswise on chest, right arm above, hands resting in front of shoulders.

22. *Arms in circle over head* (Fig. 9). — Arms are raised either forward or sideways upward, elbow and wrist joints slightly bent, fingertips touching.

23. *Semi-circle over head* (Fig. 21). — Same as 22, executed with one arm.

24. *Arms sideways left (right)* (Fig. 24). — Both arms sideways left, left arm straight, right arm bent in front of chest to a right angle, elbow in front of shoulder, knuckles upward.

25. *Arms bent in front* (Fig. 26). — Forearms are placed horizontally in front of chest, fingertips touching, palms downward, upper arms sideways.

26. *Hands under shoulder* (Fig. 37). —

Hands are placed under arm pits, elbows height of shoulders.

*B. ARM EXERCISES.*

1. *Raising and lowering of arms.* — Arms are raised and lowered in an extended position from the shoulders unless otherwise stated.

2. *Straightening of arms.* — This exercise is usually taken from the starting positions, "Hands on hips" or "Hands on shoulders," from which positions the arms are extended energetically to various positions, fingers are extended, thumbs resting on index fingers. In the forward position the palms are inward, in the side position palms are downward, in the upward position, where hands pass in front of shoulders, palms are inward.

3. *Thrusting of arms.* — This exercise is taken from the starting position, "Arms bent to thrust." The exercise is similar to the straightening of arms, but more vigorous and the fingers remain clenched.

4. *Striking of arms.* — This exercise is



executed forcibly and, as the upper arms are already in the horizontal position, the forearms move in the direction indicated, striking an imaginary object.

5. *Swinging of arms.* — The starting position frequently used for this exercise is "Hands on shoulders." This exercise is similar to the movement of arms in club-swinging, the arms are gracefully swung in circles or semi-circles inward or outward, left or right.

6. *Rotating of arms or forearms* (Fig. 38). — This is a turning of the arm or forearm on its axis, forward, backward, left or right, inward or outward, the direction depending upon the position of the arms.

7. *Flinging of arms or forearms.* — This is a quick movement of the arm or forearm in a given direction and an immediate return in one count.

8. *Clapping hands.* — Clapping hands may be executed in front or rear of body or over head. The exercises are executed from

various starting positions, arms are always slightly bent during the execution.

#### C. HAND EXERCISES.

1. *Close and open hands* (Fig. 20). — In this exercise the fingers are tightly clenched, the thumb resting on first and second fingers.

2. *Wrist exercise* (Fig. 8). — Move hands inward or outward, left or right, forward or backward, upward or downward, the direction depending on the positions the arms occupy.

#### D. HEAD EXERCISES.

1. *Bending head forward*. — The head moves forward until the chin rests on the chest, eyes directed downward.

2. *Bending head backward* (Fig. 28). — The head moves as far backward as possible, eyes directed upward.

3. *Bending head left or right* (Fig. 26). — In this exercise the head moves directly left (right), shoulders firm and eyes front.

4. *Turning head left or right* (Figs. 21,

27). — The head turns a quarter turn left (right) ( $90^\circ$ ), eyes directed to the left (right), shoulders firm.

5. *Bending head obliquely forward left or right.* — The head moves in a direction between forward and sideways, eyes directed downward.

6. *Bending head obliquely backward left or right* (Fig. 39). — The head moves in a direction between backward and sideways, eyes directed upward.

Note: It is well to have the hands in a fixed position during the exercises.

#### *E.* TRUNK EXERCISES.

1. *Bending trunk forward* (Figs. 7, 29). — The trunk bends forward to an obtuse or right angle, back straight, head in a normal position to the trunk, eyes downward.

2. *Bending trunk backward* (Fig. 30). — In this exercise the spine is well arched, chest extended, poise of head and shoulders

remain unchanged, eyes directed upward, knees straight and together.

Note: Caution pupils not to hold their breath during this exercise.

3. *Bending trunk left or right* (Fig. 31). — The trunk bends directly sideways from the waist, poise of head and shoulders remain unchanged, eyes front, feet firm, knees straight and together.

4. *Turning trunk left or right* (Fig. 32). — This exercise brings the trunk, hips and legs into action, poise of head to trunk unchanged, feet firm. With a little practice the pupils are able to execute a quarter turn left (right).

5. *Bending trunk obliquely forward left or right*. — This is a combination of bending and turning, trunk moving in an oblique direction, forward left (right). Otherwise same as 1.

6. *Bending trunk obliquely backward left or right*. — This also is a combination of bending and turning, trunk moving in an

oblique direction backward left (right).  
Otherwise same as 2.

*F. LEG EXERCISES.*

1. *Raising left or right leg forward* (Fig. 33). — The movement takes place in the hip joint, knees straight, foot extended and about four to six inches above the floor and pointing obliquely outward.

2. *Raising left or right leg sideways* (Fig. 34). — Same as No. 1. Movement sideways. Caution pupils against the swaying of trunk to the opposite side.

3. *Raising left or right leg backward* (Fig. 38). — Same as No. 1. Movement backward, trunk erect.

4. *Raising left or right knee forward* (Fig. 9). — Knee is raised on a level with hip joint, bent to a right angle and foot extended.

5. *Raising left or right foot backward* (Fig. 36). — The foot is raised on a level with knee, foot extended and knees together.

6. *Bending knees*. — This exercise is executed to an *obtuse*, *right* or *acute* angle.

*a. Obtuse angle* (Fig. 10). — Knees bent outward in direction of toes, feet firm. The body must remain in an erect position. It is well to have hands in a fixed position.

*b. Right angle* (Fig. 11). — Same as *a*. Heels raised from floor, balancing on the balls of the feet.

*c. Acute angle* (Fig. 12). — Same as *b*, bending to an acute angle.

7. *Raise left (right) foot in front of right (left) knee* (Fig. 13). — The left (right) leg is raised forward, the left (right) heel touching right (left) knee. Foot parallel with leg.

8. *Swinging leg*. — The leg is swung forward and backward or left and right from the hip, knees straight. In the sideward swing the leg passes in front.

9. *Lunging* (Figs. 14, 39). — This is executed forward, sideways, backward or in the

oblique directions. Move foot two or three foot-lengths in given direction, bending the knee, weight of body following. The stationary leg is straight and feet firm. Poise of head and trunk remains unchanged.

10. *Bending of one knee and raising of other leg* (Figs. 15, 37). — The leg is raised forward, sideways, backward or obliquely. The stationary leg bending at the same time, foot firm

#### G. FOOT EXERCISES.

1. *Close and open feet* (Fig. 17). — This exercise is executed on both heels, heels remaining together, toes moving inward and outward. During this movement the toes do not come in contact with the floor.

2. *Rise on toes* (Fig. 16). — Both heels are raised from the floor, remaining together, body balancing on the balls of the feet. This exercise may be simplified by raising left and right heel alternately, then both.

3. *Rise on heels*. — The toes are raised



from floor, body balancing on heels. The trunk bends slightly forward. This exercise may be simplified as stated in No. 2.

4. *Bend and straighten foot.* — This exercise is executed when the foot is in suspension. (Raising knee.) The action is in the ankle joint, toes are raised toward the leg to an acute angle and then lowered.

## H. STEP POSITIONS.

In these exercises the leg is raised, the instep is arched, the toe is placed lightly upon the floor, the weight of the body rests on the stationary leg.

1. *Forward, sideways, backward* (Fig. 18, 27, 35). — The position of the foot is as explained. It is taken in the indicated direction.

### 2. *Oblique.*

a. *Left (right) foot obliquely forward left (right)* (Fig. 21). — The left (right) foot is moved in direction between forward and sideways left (right) at an angle of  $45^{\circ}$ .

*b. Left (right) foot obliquely forward right (left)* (Fig. 22). — The left (right) foot is moved in direction between forward and sideways right (left).

*c. Left (right) foot obliquely backward left (right)* (Fig. 19). — The left (right) foot is moved in direction between backward and sideways left (right).

*d. Left (right) foot obliquely backward right (left)* (Fig. 20). — The left (right) foot is moved in direction between backward and sideways right (left).

3. *Cross-step position* (Fig. 23). — The left (right) is moved diagonally forward in front of right (left) foot. The left toe is placed in front of right heel and left heel in front of right toe (feet covering).

4. *Over-step position* (Fig. 24). — Left (right) foot passes over the right (left) foot, foot resting on toes, knee bent, toes on line.

5. *Guard-step position* (Fig. 25). — Left (right) foot forward, sideways, backward or

the oblique positions. The foot is placed flat on the floor, the knee is straight. The stationary leg is bent. Body in all the positions erect, the weight resting on stationary leg. The feet are about two foot-lengths apart.

6. *Cross-step position backward and both knees bent (courtesy)* (Fig. 40). — The left (right) foot is moved diagonally backward in rear of right (left) foot, both knees are bent.

### I. TACTICS.

1. *Erect position in the seat* (Fig. 2).

Command — 1. *Class* — 2. *Attention!*

At this command the pupils assume the erect position, the lower spine touching the back of the seat, chest leading, shoulders back, head erect, hands grasp the desk (fingers above, thumbs beneath), hands are width of shoulders apart, feet flat on the floor.

2. *Resting position in the seat* (Fig. 1).

Command — 1. *Class* — 2. *Rest!*

At this command the pupils lean back but do not slide forward in the seat. The hands are placed on the lap.

*Other resting positions.*

*a. Hands on rear corners of seat — Place!*

This is a restful position and improves the pupils' carriage, the chest being forward and the shoulders back. Hands rest lightly. Back touching.

*b. Hands on side edges of desk — Place!*  
(Fig. 3).

At this command arms are raised, hands grasping side edges of desk. The hands, wrists and part of forearms resting on the desk. Back touching.

*c. Resting and stretching exercise (Fig. 4).*

Command — *Hands in rear of head — Place!*

In this position trunk is bent backward four to six times, arching the upper spine.

This exercise should be given after work at which the pupils are inclined to stoop (drawing, writing).

### 3. *Erect position in aisle.*

Command — 1. *Class* — 2. *Attention!* — (Fig. 6).

Heels are on line and together, the feet turned out equally, forming an angle of about sixty degrees, the knees are straight and together, the body erect on hips inclining slightly forward, the chest leading, shoulders are square and fall equally, arms and hands hang naturally, knuckles outward, head erect, chin slightly drawn in, eyes straight to the front.

### 4. *Resting position in aisle* (Fig. 5).

Command — 1. *Class* — 2. *Rest!*

An easy position is to be taken, free from strain; the right foot is placed its length directly backward, left knee slightly bent, the weight of the body rests equally divided on both feet, hands grasped in rear of body.

### 5. *Marking time.*

Command — *Mark time* — *March!*

It is a resemblance of marching without gaining ground, by alternately advancing

each foot its length and bringing it back on a line with the other. Do this exercise as softly as possible with very little swaying of the body. At the command, *Mark time*, throw the weight of the body on the right foot and get ready, and at the word *March!* raise the left foot, returning it as the teacher says "One" or "Left." Then continue, counting One! Two! or Left! Right!

6. *Marching* — *Forward, Backward, Sideways.*

a. *Forward.* — At the command *March!* move left foot straight forward, throw the weight of the body forward and place the foot without a jerk (the ball of the foot comes in contact with floor first, heel following immediately), weight of body resting upon the foot. In like manner advance the right foot, continue to march, keeping the face to the front.

b. *Backward.* — Is similar to forward, in opposite direction.

c. *Side-step — Left — Right.* — Side-step left is executed by moving the left foot about 12 inches to the left, keeping the knees straight, the body erect. As soon as the left foot is placed, bring the right foot beside it, continue according to the number of steps designated, counting two for each step.

Note: The marching forward, backward or sideways may be executed when there is available space around the side of the room or up and down the aisles (Serpentine March).

d. *Limited number of steps forward or backward.* — The steps are executed the same as described above with the additional closing step (lock heels). For example — One step forward, take one step forward left and bring right foot to side of left, counting two. For two steps forward count three, and so on, adding one count to the number of steps indicated.

## 7. *Facings.*

Command — *Left (Right) — Face!*



This is a quarter turn, executed by slightly raising the right heel and left toe, facing to the left, turning on the left heel assisted by a slight pressure on the ball of the right foot.

Command — *Half left (right) — Face!*

This is an eighth turn, executed in the same manner as *Left (Right) — Face!*

#### 8. *Marking time and facings.*

While the pupils mark time, the command *Left (Right)* is given as the left (right) foot strikes the floor, the turn left (right) is then executed on the next following step left (right) at the command *Face!* The marking time is then resumed in the new direction.

#### 9. 1. *Class* — 2. *Halt!*

To cease marking time the command *Halt!* is given as the left foot descends, the right foot is then placed without jerk by the side of the left foot.

### J. RISING EXERCISE.

#### 1. Command — *Calisthenics!*

At this command pupils clear the top of desks and monitors attend to windows.

2. Command — 1. *Class* — 2. *Attention!*  
(See Tactics.)

3. *a.* Command — *Rise in four counts* —  
*One — Two — Three — Four.*

(First and Second Grades.) At "One" pupils move to the right (left) of seat, hands together on corresponding corner. At "Two" pupils execute a quarter turn right (left), feet in the aisle, hands on lap, facing the side. At "Three" they rise, assuming the erect position. At "Four" pupils face front, turning on left heel.

*b.* *Rise in three counts* — *One — Two — Three.*

(Third, Fourth, Fifth and Sixth Grades.)  
"One" and "Two" same as 3, *a.* At "Three" pupils rise and face front.

*c.* *Rise in two counts* — *One — Two.*

(Seventh and Eighth Grades.) "One" same as 3, *a.* At "Two" pupils place the

right (left) foot in the aisle, rise and place left (right) foot at side of right (left) foot. Assuming the erect position and facing front.

#### CLOSING EXERCISE.

1. Pupils resume their places in reverse order from rising.

2. 1. *Class* — 2. *Rest!* (See Tactics.)

#### K. BREATHING.

Air is life. Deep breathing is one of the most important exercises of physical training. Though in educational gymnastics it cannot be as completely employed as in medical gymnastics, its merits are so great that every lesson should have one breathing exercise even though not indicated.

To derive the greatest benefit from this exercise, breathe air as pure as possible. Never give this exercise when the air has been overfilled with particles of dust.

Deep breathing is given for manifold reasons the following of which may be named

as the most important: To develop those muscles which assist directly in breathing, to develop the diaphragm and the intercostal muscles, also the muscles of the neck, shoulder and waist; to preserve and increase the elasticity of the lungs and thorax, to expand the chest, to increase the lung capacity, to produce stronger and deeper respiration and to stimulate the circulation.

In proper breathing the air is inhaled through the nostrils, the lips are closed. It is exhaled through the mouth. Of the breathing exercises which are given below, in Nos. 1, 2, 3, 6 and 9 it is advisable to require the articulation of the vowels *a*, *o* and *u* during the exhalation.

BREATHING EXERCISES. — Grades I., II. and III. Arms remain in fixed position, hands are grasped in rear or placed on hips or clasped behind the head. Arms are folded in rear. Grades IV., V., VI., VII. and VIII. take the breathing exercises with arm, head and trunk movements, separate or combined.

## EXERCISES.

*Inhale.*

1. Raise arms sideways.
2. Raise arms sideways upward.
3. Arms in position forward. Move arms outward and rise on toes.
4. Arms folded in rear. Bend head backward.
5. Bend trunk slightly backward.
6. Hands clasped in rear. Raise arms backward and bend head backward.
7. Arms outward in position. Rotate arms backward and bend head backward.
8. Arms upward (palms inward) in position. Lower arms sideways (palms upward) with bending of trunk backward.
9. Arms upward (palms inward) in position. Lower arms, hands in rear of head (palms upward).

*Exhale.*

1. Lower arms.
2. Lower arms sideways downward.

3. Move arms inward and lower heels.
4. Straighten head.
5. Straighten trunk.
6. Lower arms and straighten head.
7. Rotate arms forward and straighten head.
8. Arms upward and straighten trunk.
9. Straighten arms upward.

*Duration.* — Inspiration is an active movement and requires less time than does the *expiration*, which is a passive movement; therefore the counts during the inspiration should be given more rapidly than in the expiration if of equal number. When unequal (inspiration 2, expiration 4, etc.) the time the same.



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# ILLUSTRATIONS

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FIG. 1



RESTING POSITION IN SEAT  
HANDS ON LAP



FIG. 2



ERECT POSITION IN SEAT



FIG. 3



RESTING POSITION IN SEAT  
HANDS ON DESK





FIG. 4



STRETCHING EXERCISE IN SEAT



FIG. 5



RESTING POSITION IN AISLE



FIG. 6



ERECT POSITION IN AISLE



FIG. 7



TRUNK BENT FORWARD (OBTUSE ANGLE)  
HANDS ON HIPS





FIG. 8



ARMS SIDEWAYS HANDS UPWARD  
OVERSTEP POSITION RIGHT



FIG. 9



ARMCIRCLE OVER HEAD  
KNEE FORWARD



FIG. 10



KNEES—OBTUSE ANGLE  
ARMS FOLDED IN FRONT





FIG. 11



KNEES—RIGHT ANGLE  
HANDS GRASPED IN REAR



FIG. 12



KNEES—ACUTE ANGLE  
HANDS ON HIPS



FIG. 13



HANDS PLACED ON SHOULDERS  
FOOT IN FRONT OF KNEE



FIG. 14



LUNGE FORWARD  
HANDS CLASPED BEHIND HEAD





FIG. 15



LEFT KNEE BENT—RIGHT LEG FORWARD  
RIGHT ARM OBLIQUELY FORWARD UPWARD  
LEFT ARM OBLIQUELY BACKWARD DOWNWARD



FIG. 16



ARMS FOLDED IN REAR  
RISE ON TOES



FIG. 17



ARMS CROSSWISE ON CHEST  
FEET CLOSED



FIG. 18



STEP-POSITION FORWARD  
ARMS OBLIQUELY FORWARD DOWNWARD





FIG. 19



LEFT FOOT—OBLIQUELY BACKWARD LEFT  
LEFT ARM—OBLIQUELY SIDEWAYS UPWARD  
RIGHT ARM—OBLIQUELY SIDEWAYS DOWNWARD



FIG. 20



ARMS TO THRUST

LEFT FOOT—OBLIQUELY BACKWARD RIGHT



FIG. 21



HEAD TURNED LEFT

HANDS CLASPED IN REAR

LEFT FOOT—OBLIQUELY FORWARD LEFT



FIG. 22



ARMS TO STRIKE FORWARD  
LEFT FOOT—OBLIQUELY FORWARD RIGHT





FIG. 23



ARMS TO STRIKE SIDEWAYS  
CROSS-STEP-POSITION LEFT



FIG. 24



ARMS SIDEWAYS LEFT  
OVERSTEP-POSITION LEFT



FIG. 25



HANDS PLACED BEHIND HEAD  
GUARD-STEP LEFT BACKWARD



FIG. 26



ARMS BENT IN FRONT  
HEAD BENT LEFT





FIG. 27



SEMICIRCLE LEFT OVERHEAD  
HEAD TURNED LEFT  
SIDESTEP-POSITION RIGHT



FIG. 28



HEAD BENT BACKWARD  
HANDS ON HIPS



FIG. 29



TRUNK BENT FORWARD (RIGHT ANGLE)  
HANDS GRASPED IN REAR



FIG. 30



TRUNK BENT BACKWARD  
ARMS FOLDED IN REAR





FIG. 31



TRUNK BENT SIDEWAYS  
ARMCIRCLE OVER HEAD



FIG. 32



TRUNK TURNED  
HANDS ON SHOULDERS



FIG. 33



ARMS FORWARD  
LEG FORWARD



FIG. 34



ARMS SIDEWAYS  
LEGS SIDEWAYS







































